

► **COVER TO COVER****In This Issue...****Lloyd D. Fricker**Department of Molecular Pharmacology
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Bronx, New York 10461► **MEDICAL REVIEW:****Functional Magnetic Resonance Imaging: From Acquisition to Application (p.2)**

Functional Magnetic Resonance Imaging (fMRI) is an important technique that has revolutionized the field of medical imaging. Gail Yarmish and Michael Lipton review the science behind the technique of fMRI and describe the clinical applications. Potential applications of this powerful technique are also discussed.

► **MEDICAL REVIEW:****Pain Assessment and the Mental Health Practitioner: A Mind-Body Approach (p.10)**

Pain is cited as one of the most frequent reasons for visits to the physician. Despite the availability of powerful pain killers such as opiates and their synthetic derivatives, pain is not satisfactorily treated in a large number of patients. Eliezer Schnall discusses the biopsychosocial approach to pain assessment and the plethora of new observational, self-report, and interviewing methods. Pain assessment in the young and the elderly is also discussed.

► **MEDICAL REVIEW:****Informed Consent and Sham Surgery as a Placebo in Fetal Cell Transplant Therapy Research for Parkinson's Disease (p.14)**

It is well recognized that in pharmacology research, it is essential to compare the effects of a test compound with those of an inert placebo. Furthermore, it is important that neither patient nor physician is aware of the treatment group. While the general concept of a "placebo" group is reasonable for validation of surgical procedures, there are ethical considerations when the sham surgery has risks involved. Joshua Rosenberg discusses some of the ethical issues that need to be considered with sham surgery, with a focus on fetal cell transplant research (which unlike other most surgical procedures can be done in a double blind format). Problems and solutions to the current approach for obtaining informed consent from participants in these studies are discussed.

► **MEDICAL REVIEW:****Communication in the Clinical Encounter: Dealing with the Disparities (p.19)**

We have come a long way since the days of Hippocrates. For one thing, modern day doctors (and everyone who is not a rock star) have both a first and a last name. In addition, great progress has been made in understanding the molecular and cellular basis of many diseases, and this in turn has led to improvements in therapy. Adnan Pirbhai proposes that a "shared treatment decision-making model" addresses the communi-

cation problems between physician and patient, and is a step towards the basic Hippocrates' principle that the body must be treated as a whole and not just a series of parts.

► **HISTORICAL PERSPECTIVE:****Can Outstanding Research Be Done Under Less Than Ideal Conditions? (p.23)**

In this article, Rajko Igić argues that the answer to the question posed in his title is "yes" although rare. The lives and achievements of three Yugoslav scientists, who were active in the biomedical sciences in the 1800s and 1900s, are used as an example of success in less than ideal environments. These three scientists are Laza Lazarević (1851-1891), Ivan Djaja (1884-1957), and Pavao Stern (1913-1976). A comparison of these three scientists reveals some common elements that may have helped them rise above the challenges that come from trying to do cutting-edge research with sub-optimal support.

► **INNOVATIVE MEDICAL EDUCATION:****Molecular and Cellular Foundations of Medicine (p.28)**

Six years ago, the first and second year curriculum for medical students at Albert Einstein College of Medicine was thoroughly revamped. One major change was the merging of Immunology, Genetics, Cell Biology, and Biochemistry into a single first year course: Molecular and Cellular Foundations of Medicine. Howard Steinman reviews the creation and evolution of this course and includes discussion of its successes, weaknesses, and future directions.

► **COMMENTARY:****Reforming Medicaid and Vulnerable People (p.33)**

The proposed changes to Medicaid and the impact of these changes are discussed by Arnold Birenbaum.

► **COMMENTARY:****Reconsideration of the New York State Laws Rationalizing the Supervision and the Working Conditions of Residents (p.36)**

Graduate medical education and the recent changes in the working conditions of residents are discussed by Bertrand Bell.

► **COMMENTARY:****Thomas Eakins: Painter of Doctors and Other American "Doers" (p.41)**

Thomas Eakins' paintings included those of prominent doctors. Ronald Nagel reflects on the work of Eakins and points out the relevance of the paintings to the medical standards of the time, which was approximately 100 years ago.